

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re United States Patent Application of:	)	Docket No.:	020732-97.668 (7493)
	)		
Applicants: RATH, Melissa K., et al.	)	Conf. No.:	4823
	)		
Application No.: 10/792,038	)	Art Unit:	1752
	)		
Date Filed: March 3, 2004	)	Examiner:	LE, Hoa Van
	)		
Title: COMPOSITION AND PROCESS FOR POST-ETCH REMOVAL OF PHOTORESIST AND/OR SACRIFICIAL ANTI-REFLECTIVE MATERIAL DEPOSITED ON A SUBSTRATE	)	Customer No.:	24239

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REPLY BRIEF IN RESPONSE TO EXAMINER ANSWER ISSUED IN U.S. PATENT  
APPLICATION NO. 10/792,038

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Mail Stop Appeal  
Commissioner for Patents  
P-0, Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. § 41.41, Appellant hereby replies to the Examiner's Answer dated September 10, 2010, responding to Appellant's Appeal Brief filed on March 11, 2010.

**REMARKS**

According to the Examiner in the September 10, 2010 "Examiner's Answer:"

"The strong alkalinity property mentioned by Appellant in Exhibits 4 and 5 are noted. However, the applied primary reference, Koito et al., teaches that when a liquid cleaning composition is highly alkaline with a pH higher than 12, a buffering agent should be added to the liquid cleaning composition to bring the pH down in the desired range of from 6 to 12 . . . ." (see, page 9, lines 6-11)

As discussed in applicants' Appeal Brief, applicants have used the program "Buffer Maker" (see,

Exhibit 4 in the Appeal Brief) to demonstrate that even if the Koito composition including TMAH was buffered, the buffer capacity at pH values in a range from 8 to 11 is so low that negligible amounts of KOH will drive the pH above 12, rendering Koito unsatisfactory for its intended purpose.

Referring to Exhibit 5 in the Appeal Brief, four different preparations of a lactic acid-TMAH buffer are shown at pH 8, 9, 10, and 11. Referring to the buffer capacity versus pH plot at the bottom, it can be seen that the pH of the 8, 9, 10, and 11 buffers is expected to rise to approximately 11.89, 11.89, 11.90 and 11.94 after the addition of only 10 mmol/L of strong monoprotic base (e.g., KOH). For the record, 10 mmol/L of KOH is equivalent to 0.056 wt% KOH. In other words, the skilled practitioner would have to add much less than 0.056 wt% KOH to maintain the pH below 12 to not render Koito unsatisfactory for its intended purpose. Applicants question, where is the motivation, teaching or suggestion to add a negligible amount of a second strong base to the Koito composition when the Koito composition actually performs better at pH values in a range from 8 and 10 and when this pH can be readily achieved with the first strong base (TMAH)?

Moreover, where is the motivation to add an alkali base to the composition of Koito only to add a buffering agent to counteract the pH rise, consistent with the Examiner's statement hereinabove? Why would the skilled artisan add chemicals to a composition only to then deactivate them? Clearly, they would not.

Considered *in toto*, applicants claimed invention is not obvious over Koito in view of En or Sato. One skilled in the art considering Koito who opts to use the quaternary base, which is already a strong base, would not look to En or Sato and think that adding a second strong base will increase the stripping power. Instead, said skilled person would recognize that a second strong base would push the pH up to values that would render the Koito composition unsatisfactory for its intended purpose.

In conclusion and in light of the above discussion, Applicants submit that the Office has not met its burden of establishing a *prima facie* case of obviousness. Accordingly, Applicants respectfully request that the rejection of claims 1-2, 4-5, 10, 15, 19-20 and 56 be reversed and all claims found patentable.

### Conclusion

Based on the foregoing arguments, it is respectfully requested that the Board of Patent Appeals and Interferences reverse the decision of the Examiner finally rejecting claims 1, 2, 4-6, 10, 15, 17-21, 53, 56 and 57, and affirmatively recognize the patentability of such claims over the cited prior art. Authorization also is hereby given, to charge any additional fee or amount properly payable in connection with the filing of this Reply Brief, to Deposit Account No. 13-4365 of Moore & Van Allen.

Respectfully submitted,



Tristan A. Fuierer  
Attorney for Appellant  
Reg. No. 52,926